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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/035,229	01/04/2002	Stephen P. Farwell	03943.0102	2253

7590 08/13/2003

Finnegan, Henderson, Farabow,  
Garrett & Dunner, L.L.P.  
1300 I Street, N.W.  
Washington, DC 20005-3315

EXAMINER
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KRISHNAMURTHY, RAMESH

ART UNIT	PAPER NUMBER
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3753

DATE MAILED: 08/13/2003

9

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/035,229

Applicant(s)

FARWELL ET AL

Examiner

Ramesh Krishnamurthy

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 05 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1 - 63 is/are pending in the application.
- 4a) Of the above claim(s) 29 - 63 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 - 28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

This office action is responsive to communications filed 06/05/2003.

**Claims 1 – 63 are pending.**

1. Applicant's election of Species B in Paper No. 8 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

2. Claims 29 – 63 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 8.

3. **Claims 1 – 28 remain for further consideration.**

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 4 – 6, 9, 12 – 15, 18 – 22 and 25 – 27 are rejected under 35 U.S.C. 102(b) as being anticipated by Short, III et al. (US 5,036,632).

Short, III et al. discloses a pressure relief device (10) comprising a substantially flat flange section, which here is taken to be the flat section through the bolts (34) pass through, and a domed section (14) (that has a concave surface facing the inlet end and a convex surface facing the outlet end), a transitional section connecting the two sections being inherent to the device, with a transitional line that defines a change in the shape from flat to domed located outside plane defined by the flange section that has

been defined above and also the transitional line extends around the perimeter of the domed section. The device (10) has an inlet side frame (30) and an outlet side frame (32), with the domed section (14) disposed on the outlet side. It is noted that the geometry disclosed in Figs. 1 – 10 correspond to a rectangular rupturable panel. However, Short, III et al. clearly anticipate the use of a circular panel, as well (Col. 3, lines 38 – 42) in which case the transitional line would be a circle. Gaskets (26, 28) are disposed between the flanged section and the frame (30, 32).

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 2, 3, 10, 11, 16, 17, 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Short, III et al. as applied to claims 1, 4 – 6, 9, 12 – 15, 18 – 22 and 25 – 27 above, and further in view of Farwell (US 5,678,307).

The patent to Short, III et al. discloses the claimed invention with the exception of explicitly disclosing the shape of the domed section between the flat flange section and the transitional line.

Farwell discloses a pressure relief device having a domed rupture panel with a domed portion (64) connected to a flat flange portion (62) with a transitional line located outside the flange portion and the specific shape (including curved or linear) of the domed portion between the flange and the transitional line being chosen so as to accurately set the rupture pressure of the rupturable panel.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided in rupture panel of Short, III et al. a shape of the domed section between the flat flange section and the transitional line, that is either curved or linear, for the purpose of accurately setting the rupture pressure of the rupturable panel, as recognized by Farwell.

9. Claim 7 is rejected under 35 U.S.C. 102(b) as anticipated by Short, III et al. or, in the alternative, under 35 U.S.C. 103(a) as obvious over Short, III et al., as applied to claims 1, 4 – 6, 9, 12 – 15, 18 – 22 and 25 – 27 above, and further in view of Robinson et al. (US 4,787,180).

The geometry of a rectangular rupture panel disclosed by Short, III et al. requires a plurality of transitional lines with one at least one line aligning with each corner. However, should it be determined that such is not the case then it would have been obvious to one of ordinary skill in the art to have provided such a plurality of transitional lines with one at least one line aligning with each corner, as taught by Robinson et al.

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(see Figs. 4 and 5) since such an arrangement clearly provides uniform pre-stressing of the rupture panel.

10. Claims 8 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Short, III et al. as applied to claims 1, 4 – 6, 9, 12 – 15, 18 – 22 and 25 – 27 above, and further in view of Mozley et al. (US 6,241,113).

The patent to Short, III et al. discloses the invention claimed with the exception of a plurality of notches disposed adjacent the transitional line.

Mozley et al. discloses rupture disc with a transition region having a notch (23) (Col. 6, lines 14 – 25) for the purpose of channeling sufficient stress to the notch region, thereby obtaining a predictable burst pattern.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made to have provided in the device of short, III et al. a plurality of notches adjacent the transition line for the purpose of channeling sufficient stress to the notch region, thereby obtaining a predictable burst pattern, as recognized by Mozley et al.

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. White, Fike et al., De Lacy F. Ferris, Herbst, Beese, Mozley and Hinrichs et al. disclose various embodiments of domed rupture discs/panels..

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramesh Krishnamurthy whose telephone number is (703) 305 - 5295. The examiner can normally be reached on Monday - Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John A. Rivell, can be reached on (703) 308 - 2599. The fax phone number for the organization where this application or proceeding is assigned is (703) 872 - 9302 and for after-final communications, the fax phone number is (703) 872 9303.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0861.

A handwritten signature in black ink, reading "Ramesh Krishnamurthy". The signature is written in a cursive style with a large, stylized 'R' and a long, sweeping underline.

Ramesh Krishnamurthy  
Examiner  
Art Unit 3753